

Mr. James Nelson
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- 11. Bonding Costs
- 12. Sales or Use Taxes

Predicted Performance

The furnace platen extension is offered as a means of increasing the total superheater absorption by allowing some degradation in furnace cleanliness while maintaining a constant furnace exit gas temperature. In effect, the platen absorption increases with the greater surface and higher gas temperature entering the platens while holding FEGT. The expected performance of the superheater and platens has been based on a total excess air leaving the economizer of 20% or 18% to the combustion equipment. This is a 2 point increase from the original design and is a result of the expected addition of an OFA system. The nominal 8' platen extension will allow the gas temperature entering the platens to increase by approximately 35F while maintaining a constant furnace exit gas temperature. Under these conditions, the superheater absorption will increase by about 2.5% or an increase in spray will occur by approximately 80 to 100mlb/hr (an equivalent superheater spray down of 6F) if the base condition is a 1005 F steam temperature with no spray. It is important to note that the basis of the superheater performance increase is the ability to increase the gas temperature entering the platens. For a constant furnace cleanliness condition, the platens will provide no measurable change in superheater or reheater performance. While the overall secondary superheater inlet bank cleanliness is not expected to change as long as the FEGT is held constant, there may be somewhat increased cleaning required of the lowest section of the this bank as the FEGT is increased to improve superheater performance.

Based on a current NOx emission rate of 0.4 to 0.45 LBS/ million BTU, we would predict that the OFA system will reduce NOx to below 0.4 LBS / million BTU. CO and LOI will definitely increase. As this is a "partial" OFA system, we have no way (no operational experience) to predict performance impact to these items.

Budgetary Pricing and Progress Payment Schedule (1 unit only)

Budgetary OFA and SH Platen – Materials \$ 1,200,000

Budgetary OFA and SH Platen – Installation * \$ 2,300,000 - \$ 2,900,000

* We are still working on this price.

Payments:

% Of Price

Milestone